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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/585,206	07/03/2006	Yuuichi Aoki	Q95825	9584
23373 7590 12/28/2007 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			EXAMINER WONG, ALAN	
			ART UNIT 2817	PAPER NUMBER
			MAIL DATE 12/28/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/585,206	Applicant(s) AOKI, YUUICHI	
	Examiner Alan Wong	Art Unit 2817	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 21-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,3-6,21-24 and 26-34 is/are allowed.
- 6) ☒ Claim(s) 2 and 25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 July 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>7/3/06</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. Figure 1-6, 9, 17 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
2. For Figure 7, 8, 10-16, they are disclosed in the technical field section of the specification and describe the operation of first, second, third conventional amplifiers; and for Figure 18-23, they described relations of second conventional amplifier (Brief description of the drawings). It is unclear to the examiner if the abovementioned figures are prior art. Please clarify whether they are prior art or not.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 2 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Kobayashi (US 6,469,581).

5. With respect to claim 2, Kobayashi discloses an amplifier (Fig. 4B) having a gain extension characteristic (Col. 6 line 12-14; Class B/C) which presents an increase in gain in response to an increase in input power or output power in a certain range of the input power or the output power (definition of gain extension characteristic), said amplifier characterized in that: a mechanism (L_1 ; RF choke; Col. 5 line 24) for compressing an amplitude at high frequencies is provided at an input of said amplifier (well known operation of RF choke).

6. With respect to claim 25, Kobayashi discloses a multi-stage amplifier (Fig. 1) comprising at least two or more amplification stages (22, 24) which have a gain extension characteristic (Col. 6 line 12-14; Fig. 4B, Col. 5 line 20-27, Class B/C, Fig. 4B can be amplifier 22 or 24) which presents an increase in gain in response to an increase in input power or output power in a certain range of the input power or the output power (definition of gain extension characteristic), said multi-stage amplifier characterized in that: a mechanism (L_1 ; RF choke; Col. 5 line 24; Fig. 4B can be amplifier 22 or 24) for compressing an amplitude at high frequencies is provided at an input of said amplifier (well known operation of RF choke) other than a final stage. (Fig. 1).

Allowable Subject Matter

7. Claim 1, 3-6, 21-24, 26-34 are allowed.

8. The following is a statement of reasons for the indication of allowable subject matter:

9. With respect to claim 1 and 24, the closest reference, Baskin (US 5,781,069), failed to disclose gain extension characteristics for the amplifier stages in addition to other limitation.
10. With respect to claim 3-6, 21-23, no cited references disclose at least the first diode connected through the first impedance element to the base of the bipolar transistor with the reference power supply presents a sufficiently low impedance at high frequencies in addition to other limitation.
11. With respect to claim 5-6, 21-23, no cited references disclose at least the second diode connected in series the first impedance element, parallel to the first diode and oriented in forward direction in addition to other limitation.
12. With respect to claim 26-28, 31-34, no cited references disclose at least the first diode connected with a reference power supply presents a sufficiently low impedance at high frequencies in an amplification stage other than the first stage in addition to other limitation.
13. With respect to claim 29-34, no cited references disclose at least the second diode connected in series the first impedance element, parallel to the first diode and oriented in forward direction in an amplification stage other than the first stage in addition to other limitation.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lisco et al. (US 5,917,375) disclose inter-modulation distortion

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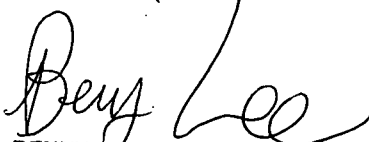
cancellation; Laureanti et al. (US 6,304,145), Dening et al. (US 6,369,656), Kobayashi (US 5,808,511) disclose bias circuit for amplifiers.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alan Wong whose telephone number is (571) 272-3238. The examiner can normally be reached on Mon-Thurs 8:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bob Pascal can be reached on (571) 272-1769. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AW


BENNY T. LEE
PRIMARY EXAMINER
ART UNIT 2817